FCC CFR47 PART 22 SUBPART H
AND
PART 24 SUBPART E
CERTIFICATION TEST REPORT
FOR

CDMA2000 PHONE WITH BLUETOOTH

MODEL NUMBER: K33B-01

FCC ID: OVFKWC-K33B01

REPORT NUMBER: 08U11595-1B

ISSUE DATE: FEBRUARY 26, 2008

Prepared for

KYOCERA WIRELESS CORP
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121, U.S.A.

Prepared by

COMPLIANCE CERTIFICATION SERVICES
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	02/14/08	Initial Issue	T. Chan
B	02/26/08	Updated Standard	T. Chan

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: KYOCERA WIRELESS
10300 CAMPUS POINT DRIVE
SAN DIEGO, CA 92121, USA

EUT DESCRIPTION: CDMA2000 PHONE WITH BLUETOOTH

MODEL: K33B-01

SERIAL NUMBER: 806DDC90

DATE TESTED: JANUARY 29 - FEBRUARY 02, 2008

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC PART 22 SUBPART H	No Non-Compliance Noted (Radiated Only)
FCC PART 24 SUBPART E	No Non-Compliance Noted (Radiated Only)

Compliance Certification Services, Inc. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification Services will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By: Tested By:

THU CHAN
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

CHIN PANG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA/EIA 603C (2004), FCC CFR 47 Part 2, FCC CFR 47 Part 22H, and 24E.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radiated Emission, 30 to 200 MHz	+/- 3.3 dB
Radiated Emission, 200 to 1000 MHz	+4.5 / -2.9 dB
Radiated Emission, 1000 to 2000 MHz	+4.5 / -2.9 dB
Power Line Conducted Emission	+/- 2.9 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a CDMA2000 Phone with Bluetooth.

The radio module is manufactured by Kyocera.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak ERP & EIRP output powers as follows:

824 to 849 MHz Authorized Band

Frequency Range (MHz)	Modulation	ERP Peak Power (dBm)	ERP Peak Power (mW)
Low CH - 824.7	CDMA2000	28.5	707.95
Mid CH - 836.5		29.1	812.83
High CH - 848.3		28.6	724.44

1850 to 1910 MHz Authorized Band

Frequency Range (MHz)	Modulation	EIRP Peak Power (dBm)	EIRP Peak Power (mW)
Low CH - 1851.25	CDMA2000	29.8	954.99
Mid CH - 1880		28.7	741.31
High CH - 1908.75		28.3	676.08

5.3. SOFTWARE AND FIRMWARE

The EUT is linked with Agilent Communication Test Set.

5.4. WORST-CASE CONFIGURATION AND MODE

PROCEDURE USED TO ESTABLISH TEST SIGNAL

3G-CDMA2000 1xRTT

This procedure assumes the Agilent 8960 Test Set has the following applications installed and with valid license.

Application	Rev, License
CDMA2000 Mobil Test	B.10.11, L

1xRTT

- Call Setup > Shift & Preset
- Protocol Rev > 6 (IS-2000-0)
- Radio Config (RC) > RC3 (Fwd3, Rvs3)
- FCH Service Option (SO) Setup > 55
- Traffic Data Rate > Full
- TDSO SCH Info > F-SCH Parameters > F-SCH Data Rate > 153.6 kbps
  > R-SCH Parameters > R-SCH Data Rate > 153.6 kbps
- Cell Info > Cell Parameters > System ID (SID) > 8
  > Network ID (NID) > 65535

Once "Active Cell" show "Connected " then change "Rvs Power Ctrl" from "Active bits" to "**All Up bits**" to get the maximum power.

Worst-case Measurement Result @ z-position for the Low, Middle and High Channel under Radio Configuration RC3 and Service Option 55.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Lithium Battery	Sanyo	TXBAT10159	NA	NA
Communications Test Set	Agilent/HP	E5515C	GB4616022	NA

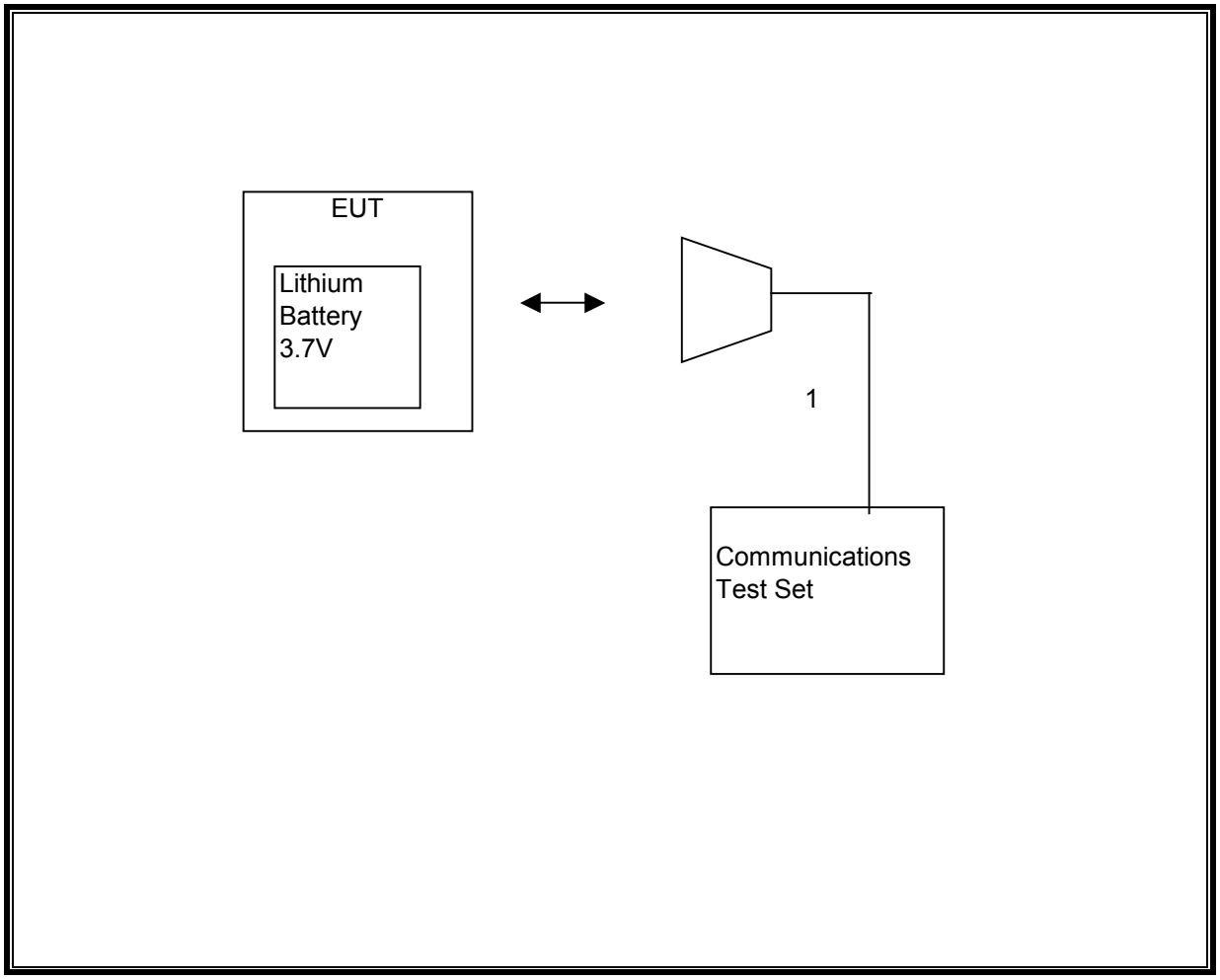
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identica Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	RF IN/OUT	1	Horn Antenna	Un-shielded	2m	NA

TEST SETUP

The EUT is a CDMA phone and-is tested as a standalone configuration. Communications Test Set is used to link the device under test.

SETUP DIAGRAM FOR TESTS



5.6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST					
Description	**Manufacturer**	**Model**	**Asset**	**Cal Date**	**Cal Due**
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/03/07	09/27/08
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	09/15/07	09/30/08
Preamplifier, 1300 MHz	Agilent / HP	8447D	NA	05/09/07	05/09/08
RF Filter Section, 2.9 GHz	Agilent / HP	85420E	C00958	02/06/07	06/12/08
Communications Test Set	Agilent / HP	E5515C	C01086	06/29/07	06/29/08
Highpass Filter, 1.5 GHz	Micro-Tronics	HPM13193	N02689`	CNR	CNR
Highpass Filter, 2.7 GHz	Micro-Tronics	HPM13194	N02687	CNR	CNR
Dipole	ETS	3121CDB4	N02338	05/01/07	05/01/08
Signal Generator	R & S	SMP04	C00953	11/16/07	02/16/09
Signal Generator	R & S	SMY01	C00979	11/28/07	05/28/09
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/14/07	03/18/08
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	C00945	04/15/07	04/15/08
Antenna, Horn 1 ~ 18 GHz	EMCO	3115	C00872	04/15/07	04/15/08

5.6.1. OUTPUT POWER

LIMITS

22.913(a) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

24.232(b) Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 2.2.17

RESULTS

No non-compliance noted.

CDMA Output Power (ERP)

High Frequency Substitution Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Kyocera
Project #: 08U11595
Date: 1/30/2008
Test Engineer:
Configuration: EUT only
Mode: CDMA2000, TX, Cell
Worst Case: Z Position

Test Equipment:
Receiving: Sunol T122, and 5m Chamber N-type Cable (Setup this one for testing EUT)
Substitution: Dipole S/N: 00022117, and 4ft SMA Cable Warehouse S/N: 177081002

f MHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch									
824.70	93.5	V	19.9	0.5	0.0	19.4	38.5	-19.0	
824.70	104.3	H	29.0	0.5	0.0	28.5	38.5	-9.9	
Mid Ch									
836.52	97.9	V	24.9	0.6	0.0	24.3	38.5	-14.1	
836.52	104.8	H	29.7	0.6	0.0	29.1	38.5	-9.3	
High Ch									
848.30	98.0	V	24.8	0.7	0.0	24.1	38.5	-14.3	
848.30	104.8	H	29.3	0.7	0.0	28.6	38.5	-9.8	

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PCS Output Power (EIRP)

High Frequency Fundamental Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Kyocera
Project #: 07U11595
Date: 1/30/2008
Test Engineer: Chin Pang
Configuration: EUT Only
Mode: TX, CDM2000, PCS
Worst Case: Z position

Test Equipment:
Receiving: Horn T73, and 12ft S/N: 197209005 (Setup this one for testing EUT)
Substitution: Horn T60 Substitution, 4ft SMA Cable Warehouse S/N: 177081002

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch									
1.851	95.8	V	22.4	0.9	8.3	29.8	33.0	-3.2	
1.851	87.2	H	13.3	0.9	8.3	20.7	33.0	-12.3	
Mid Ch									
1.880	95.6	V	21.3	0.9	8.3	28.7	33.0	-4.3	
1.880	87.0	H	12.2	0.9	8.3	19.6	33.0	-13.4	
High Ch									
1.909	94.1	V	20.8	0.9	8.4	28.3	33.0	-4.7	
1.909	86.0	H	13.2	0.9	8.4	20.7	33.0	-12.4	

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5.6.2. FIELD STRENGTH OF SPURIOUS RADIATION

LIMIT

§22.917 (e) and §24.238(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

§24.238 (a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

TEST PROCEDURE

ANSI / TIA / EIA 603 Clause 3.2.12 & FCC 22.917 (b), FCC 24.238 (b)

RESULTS

CDMA Spurious & Harmonic (ERP)

High Frequency Substitution Measurement
Compliance Certification Services, Fremont 5m B-Chamber

Company: Kyocera
Project #: 08U11595
Date: 1/30/2008
Test Engineer: Chin Pang
Configuration: EUT Only
Mode: TX, Part 22, CDMA2000

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Horn > 18GHz:
Limit: FCC 22
High Pass Filter: ☑
Hi Frequency Cables: ☐ (2 ft) ☐ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz: T145 Agilent 3008A
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	ERP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch, 824.7MHz										
1.649	54.6	H	-50.7	3.8	8.0	5.8	-48.7	-13.0	-35.7	
2.474	44.7	H	-57.5	4.9	9.5	7.4	-55.0	-13.0	-42.0	
4.124	42.7	H	-52.3	6.3	9.8	7.7	-50.9	-13.0	-37.9	
1.649	51.8	V	-54.2	3.8	8.0	5.8	-52.2	-13.0	-39.2	
2.474	43.5	V	-58.9	4.9	9.5	7.4	-56.4	-13.0	-43.4	
4.124	41.6	V	-53.7	6.3	9.8	7.7	-52.3	-13.0	-39.3	
Mid Ch, 836.52MHz										
1.673	56.0	H	-49.2	3.9	8.0	5.9	-47.2	-13.0	-34.2	
2.510	44.8	H	-57.3	4.9	9.6	7.4	-54.8	-13.0	-41.8	
4.182	43.5	H	-51.4	6.3	9.9	7.7	-50.0	-13.0	-37.0	
1.673	52.0	V	-53.9	3.9	8.0	5.9	-51.9	-13.0	-38.9	
2.510	46.4	V	-55.9	4.9	9.6	7.4	-53.4	-13.0	-40.4	
4.182	42.6	V	-52.6	6.3	9.9	7.7	-51.2	-13.0	-38.2	
High Ch, 848.3MHz										
1.697	55.4	H	-49.7	3.9	8.1	5.9	-47.6	-13.0	-34.6	
2.545	45.6	H	-56.4	4.9	9.6	7.4	-53.9	-13.0	-40.9	
4.242	43.1	H	-51.7	6.4	9.9	7.8	-50.3	-13.0	-37.3	
1.697	53.9	V	-51.9	3.9	8.1	5.9	-49.8	-13.0	-36.8	
2.545	44.6	V	-57.6	4.9	9.6	7.4	-55.1	-13.0	-42.1	
4.242	42.4	V	-52.7	6.4	9.9	7.8	-51.3	-13.0	-38.3	

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Note: No other emissions were detected above the system noise floor.

PCS Spurious & Harmonic (EIRP):

High Frequency Substitution Measurement
Compliance Certification Services, Fremont 5m B-Chamber

Company: Kyocera
Project #: 08U11595
Date: 1/30/2008
Test Engineer: Chin Pang
Configuration: EUT Only
Mode: TX, Part 24, CDMA2000

Test Equipment:

EMCO Horn 1-18GHz: T73; S/N: 6717 @3m
Horn > 18GHz:
Limit: FCC 24
High Pass Filter: ☑
Hi Frequency Cables: ☐ (2 ft) ☐ (2 ~ 3 ft) ☐ (4 ~ 6 ft) ☑ (12 ft)
Pre-amplifer 1-26GHz: T145 Agilent 3008A
Pre-amplifer 26-40GHz:

f GHz	SA reading (dBuV/m)	Ant. Pol. (H/V)	SG reading (dBm)	CL (dB)	Gain (dBi)	Gain (dBd)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Notes
Low Ch, 1851.25MHz										
3.703	54.8	H	-42.2	5.9	9.7	7.6	-38.4	-13.0	-25.4	
5.554	42.7	H	-48.8	7.4	11.3	9.1	-44.9	-13.0	-31.9	
7.405	42.3	H	-47.2	8.3	12.6	10.4	-42.9	-13.0	-29.9	
3.703	56.0	V	-41.1	5.9	9.7	7.6	-37.3	-13.0	-24.3	
5.554	43.2	V	-49.3	7.4	11.3	9.1	-45.4	-13.0	-32.4	
7.405	41.6	V	-48.7	8.3	12.6	10.4	-44.4	-13.0	-31.4	
Mid Ch, 1880MHz										
3.760	51.6	H	-45.1	6.0	9.7	7.6	-41.4	-13.0	-28.4	
5.640	43.3	H	-48.4	7.4	11.5	9.3	-44.3	-13.0	-31.3	
7.520	40.7	H	-48.7	8.3	12.6	10.5	-44.4	-13.0	-31.4	
3.760	54.6	V	-42.2	6.0	9.7	7.6	-38.5	-13.0	-25.5	
5.640	42.0	V	-50.7	7.4	11.5	9.3	-46.6	-13.0	-33.6	
7.520	40.5	V	-49.7	8.3	12.6	10.5	-45.4	-13.0	-32.4	
High Ch, 1908.75MHz										
3.817	47.5	H	-48.9	6.0	9.7	7.5	-45.2	-13.0	-32.2	
5.726	45.3	H	-46.6	7.5	11.6	9.5	-42.4	-13.0	-29.4	
7.635	43.5	H	-45.7	8.4	12.7	10.5	-41.4	-13.0	-28.4	
3.817	48.2	V	-48.3	6.0	9.7	7.5	-44.6	-13.0	-31.6	
5.726	46.3	V	-46.6	7.5	11.6	9.5	-42.4	-13.0	-29.4	
7.635	42.1	V	-47.9	8.4	12.7	10.5	-43.6	-13.0	-30.6	

Rev. 4.12.7
Note: No other emissions were detected above the system noise floor.